

## **CLAIMS**

What is claimed is:

- 1     1.     A sonde for detecting at least one downhole condition, comprising:  
2             a housing that defines at least one interior chamber for housing an electronic  
3     component;  
4             a sensor operably associated with the housing for detection of at least one  
5     borehole condition;  
6             a side entry leak protector connector assembly retained within the housing and  
7     comprising:  
8                 a generally cylindrical metallic body; and  
9                 a conductive element that is glass-sealed within the body, the conductive  
10            element being formed for interconnection to at least one conductive member  
11            within the housing.
- 1     2.     The sonde of claim 1 wherein the body of the side entry leak protector connector  
2     assembly includes a circumferential channel.
- 1     3.     The sonde of claim 1 wherein the body of the side entry leak protector connector  
2     assembly further includes an axial passage through which additional wiring may be  
3     disposed.

1 4. The sonde of claim 1 wherein the sensor is disposed upon a radial exterior of the  
2 housing.

1 5. The sonde of claim 1 wherein the sensor is disposed within the housing.

1 6. The sonde of claim 5 wherein the sensor is disposed upon the side entry leak  
2 protector connector assembly.

1 7. The sonde of claim 1 wherein the housing defines a pair of interior chambers for  
2 housing electrical components and an axial passage interconnecting the interior  
3 chambers.

1 8. The sonde of claim 7 wherein the axial passage is defined off-center from a  
2 central axis of the sonde housing.

1 9. A sonde for detecting at least one downhole condition, comprising:  
2 an outer housing;  
3 a sensor operably associated with the housing for detection of at least one  
4 borehole condition;  
5 a side entry leak protector connector assembly retained within the housing and  
6 comprising:  
7 a generally cylindrical body with a pair of axial ends;  
8 a conductive element retained within the body; and

9                    glass sealing encasing said conductive element within the body.

1    10.    The sonde of claim 9 further comprising an electrical pin connector associated  
2    with said conductive element, for electrically connecting the conductive element with an  
3    external conductor.

1    11.    The sonde of claim 9 further comprising a circumferential channel surrounding  
2    the body for capturing fluid therewithin.

1    12.    The sonde of claim 11 further comprising a pair of o-ring seals disposed upon  
2    the body to preclude escape of fluid from the channel.

1    13.    The sonde of claim 9 wherein the outer housing defines two interior chambers  
2    for housing electronic components and an axial passage that interconnects the two  
3    chambers and wherein the side entry leak protector connector assembly is retained  
4    within the axial passage.

1    14.    The sonde of claim 13 wherein the housing defines a lateral passage from the  
2    axial passage to an exterior radial surface of the housing.

1    15.    The sonde of claim 11 wherein a sensor element is disposed within the channel.

1 16. The sonde of claim 13 wherein the axial passage is defined off-center from a  
2 central axis of the sonde housing.

1 17. A method of providing fluid sealing and electrical connections within a sonde  
2 comprising the steps of:  
3 providing a sonde housing that defines therein an interior chamber for retaining  
4 an electronic component and an axial passage therewithin;  
5 providing a lateral passage from the axial passage to a radially exterior surface  
6 of the sonde housing;  
7 associating a sensor component with the lateral passage; and  
8 disposing a side entry leak protector connector assembly within the axial  
9 passage to provide a fluid seal between the lateral passage and the axial passage.

1 18. The method of claim 17 further comprising the step of establishing an electrical  
2 connection between the sensor component and the side entry leak protector connector  
3 assembly.

1 19. The method of claim 18 further comprising the step of establishing an electrical  
2 connection between the side entry leak protector connector assembly and an electronic  
3 component housed within the interior chamber.

1        20.    The method of claim 17 further comprising the step of providing a  
2                    circumferential channel about the body of the side entry leak protector  
3                    connector assembly for capturing of fluid.